

WHAT IS CLAIMED IS:

1. A linear guide apparatus comprising:

a guide rail having a plurality of rolling element race tracks provided on each of side faces of said guide rail; and

5 a slider having leg portions disposed widthwise over both sides of said guide rail and a horizontal portion connecting the leg portions, said slider including a slider main body and a pair of end caps respectively fixed to end faces of the slider main body, the slider main body having a plurality of rolling
10 element race tracks, which are provided on an inner face of the respective leg portions of the slider main body so that both of the rolling element race tracks of said guide rail and the slider main body form rolling passages, and a plurality of return passages axially penetrating through the slider main body, the
15 end caps each having a plurality of direction reversal paths communicating with the respective rolling passages and return passages of the slider main body,

wherein the slider main body has first recesses each of which provided below the rolling element race track close to
20 an end portion of each of the leg portions, and each of the end caps has first projections each of which engages with the first recess so as to determine a position of the end cap.

2. The linear guide apparatus according to Claim 1, wherein
25 the slider main body has two rolling element race tracks and

two return passages on each of the leg portions.

3. The linear guide apparatus according to Claim 1, wherein
the first recess is formed by axially grinding simultaneously
5 with the rolling element race tracks on the slider main body.

4. The linear guide apparatus according to Claim 1, wherein
each of the end caps has second projections each having a face
to be in contact with an inner face at a base end portion of
10 each of the leg portions of the slider main body.

5. A linear guide apparatus comprising:

a guide rail having a rolling element race track provided
on each of side faces of said guide rail;

15 a slider having a slider main body and a pair of end caps
fixed to end faces of the slider main body, the slider main body
having a rolling element race track provided on each of inner
faces of the slider main body so as to oppose the rolling element
race track of said guide rail;

20 a guide member for guiding a plurality of rollers disposed
between the rolling element race track of said guide rail and
the rolling element race track of the slider main body in an
axial direction of said guide rail;

a positioning section formed on the inner face of the
25 slider main body for placing said guide member at a predetermined

position; and

a positioning projection formed on each of the end caps, to be engaged with said positioning section of the slider main body, for placing the end caps provided on the end faces of the slider main body at a predetermined position.

6. The linear guide apparatus according to Claim 5, further comprising:

an engaging bore or an engaging projection formed at a tip portion of said positioning projection of the end cap; and a projection to be engaged with said engaging bore or a bore to be engaged with said engaging projection, formed on said guide member.

7. The linear guide apparatus according to Claim 5, wherein the end cap comprises an end cap main body having an outer direction reversal face for reversing a direction of the rollers, and a return guide having an inner direction reversal face opposing the outer direction reversal face on the end cap main body, and wherein said positioning projection is formed on the end cap main body.

8. The linear guide apparatus according to Claim 5, wherein the rolling element race track and said positioning section formed on the inner face of the slider main body are simultaneously

ground and finished by a single grinder.

9. A linear guide apparatus comprising:

a guide rail having a rolling element race track provided
5 on each of side faces of said guide rail;

a slider having a slider main body and a pair of end caps
fixed to end faces of the slider main body, the slider main body
having a rolling element race track provided on each of inner
faces of the slider main body so as to oppose the rolling element
10 race track of said guide rail; and

a plurality of rollers disposed between the rolling
element race track of said guide rail and the rolling element
race track of the slider main body,

wherein the slider main body comprises a positioning
15 section formed on the inner face of the slider main body in parallel
with the rolling element race track provided on the slider main
body, and each of the end caps comprises a positioning projection
to be engaged with the positioning section for placing the end
cap placed on the end faces of the slider main body at a
20 predetermined position.